

DERWENT-ACC-NO: 1988-244831

DERWENT-WEEK: 198835

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TITLE: Organic nonlinear optical material comprises
polymer of
electron
photo-memory,
etc.
aminoacid ester of nitro-substd. conjugated pi-
system contg. cpd., used for photo-switch,

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PATENT-FAMILY:

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JP 63175838 A	July 20, 1988	JA

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO
APPL-DATE		
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INT-CL-CURRENT:

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CIPS	G02F1/361	20060101

ABSTRACTED-PUB-NO: JP 63175838 A

BASIC-ABSTRACT:

An organic nonlinear optical material contains a monomer in which
cpd. of
formula O2N-G1-X=Y-G2-Z (I) is bound with the ester part of a
polymerisable
aminoacid ester. In the formula, G1 and G2 = the same or different,

bivalent
cyclic or chain pi-electron conjugated system gp.; X and Y = the same
or
different CH or N; Z = atomic gp. having reactive functional group
joined
directly with G2 by N or O.

Pref. single polymer of the monomer, or copolymer of the monomer with another amino acid or its deriv. is used as organic nonlinear optical material. Aminoacid or deriv. to be copolymerised with the monomer is e.g. alpha-helix-forming aminoacid such as glutamic acid, methionine, alanine, leucine, etc. or derivs. thereof or alpha-helix-destroying aminoacid such as proline, glycine, tyrosine, asparagine or derivs. The polymerisable amino acid ester to be bound with the cpd. of formula (I) is e.g. aspartic acid ester, glutamic acid ester, etc. An example of the nonlinear optical material is L-aspartic acid ester of 4-nitro-4'-(N-ethyl-N-(2-hydroxyethyl)amino)azobenzene.

USE/ADVANTAGE - The organic nonlinear optical material is useful for optical elements utilising third nonlinear optical effect, such as light bistable element, photoswitch, photomemory, etc. The optical material has large third nonlinear optical effect and has good mouldability and mechanical strength. The material can be simply moulded into film and alignment can be carried out easily.

TITLE-TERMS: ORGANIC NONLINEAR OPTICAL MATERIAL COMPRISE POLYMER
AMINOACID
CONTAIN
ESTER NITRO SUBSTITUTE CONJUGATE PI ELECTRON SYSTEM
COMPOUND PHOTO SWITCH MEMORY

DEBNWENT-CLASS: A23 A89 I-03 P81 II14 V07

CPI-CODES: A05-E03; A09-A02; A12-E11; A12-I-03; I-03-H04A;

FBI-CODES: W14-A03:

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0004 0015 0030 0203 0226 1283 1780 1788 1790 1794 2513

2560 2596

2629 2851 3278

Multipunch Codes: 02& 038 05& 05- 075 086 141 157 174 192 194 435 437

512 516

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SECONDARY-ACC-NO:

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